

CLAIMS

1. A substrate for mounting an electronic part or parts thereon, comprising a core substrate and at least a set of insulation layer and patterned wiring line layer, which is formed on the insulation layer, at at least one side of the core substrate, the core substrate having holes, in each of which a lead pin of the electronic part to be mounted is to be inserted, and being provided with lands which surround the opening of the hole and to which the lead pin inserted in the hole is to be bonded, wherein the insulation layer or layers at at least one side of the core substrate has bores, which expose the land at their bottoms, and communicate with the hole.

2. The substrate for mounting an electronic part or parts thereon according to claim 1, wherein the hole, in which the lead pin of the electronic part is to be inserted, has an inside wall on which a conductor layer is formed, the conductor layer being led to the land.

3. The substrate for mounting an electronic part or parts thereon according to claim 2, further comprising lands which surround the opening of the hole at the side of the core substrate opposed to the side on which the electronic parts are to be mounted, and which are led to the conductor layer on the inside wall of the hole.

4. The substrate for mounting an electronic part or parts thereon according to claim 3, wherein the land at the side of the core substrate opposed to the side on which the electronic parts are to be mounted is connected to a wiring line at this side.

5. The substrate for mounting an electronic part or parts thereon according to claim 1, wherein the holes, in which the lead pin of the electronic part is to be inserted, has an open end at the side of the core substrate opposed to the side on which the electronic parts are to be mounted.

6. The substrate for mounting an electronic part or parts thereon according to claim 1, wherein the holes,

in which the lead pin of the electronic part is to be inserted, has an closed end at the side of the core substrate opposed to the side on which the electronic parts are to be mounted.

5           7. The substrate for mounting an electronic part or parts thereon according to claim 1, which comprises the holes, in which the lead pin of the electronic part is to be inserted, having an open end at the side of the core substrate opposed to the side on which the  
10 electronic parts are to be mounted, and the holes, in which the lead pin of the electronic part is to be inserted, having an closed end at the side of the core substrate opposed to the side on which the electronic parts are to be mounted.

15           8. The substrate for mounting an electronic part or parts thereon according to claim 6, wherein the closed end is closed by the insulation layer on the core substrate, a metal layer provided at the end of the hole, or a metal film formed during the formation of the wiring  
20 line layer.

          9. The substrate for mounting an electronic part or parts thereon according to claim 7, wherein the closed end is closed by the insulation layer on the core substrate, a metal layer provided at the end of the hole,  
25 or a metal film formed during the formation of the wiring line layer.

          10. The substrate for mounting an electronic part or parts thereon according to claim 6, wherein a wiring line is provided on the insulation layer at an area  
30 corresponding to the location of the hole with the closed end.

          11. The substrate for mounting an electronic part or parts thereon according to claim 7, wherein a wiring line is provided on the insulation layer at an area  
35 corresponding to the location of the hole with the closed end.

          12. The substrate for mounting an electronic part

or parts thereon according to claim 1, further comprising a hole piercing through the core substrate and having an inside wall on which an conductor layer is provided to connect a wiring line at one side of the core substrate to another wiring line at the opposed side.

13. A method of manufacturing a substrate for mounting an electronic part or electronic parts thereon, comprising a core substrate and at least a set of insulation layer and patterned wiring line layer, which is formed on the insulation layer, at at least one side of the core substrate, the core substrate having holes, in each of which a lead pin of the electronic part to be mounted is to be inserted, and being provided with lands which surround the opening of the hole and to which the lead pin inserted in the hole is to be bonded, and the insulation layer or layers at at least one side of the core substrate having bores, which expose the land at their bottoms, and communicate with the hole, the method comprising the following steps:

providing a core substrate,  
forming holes piercing the core substrate,  
forming, on the core substrate and around the ends of the holes, lands for the connection with the lead pin of the electronic parts to be mounted,

filling the holes with a filling material,  
forming at least a set of insulation layer and patterned wiring line layer, which is formed on the insulation layer, at at least one side of the core substrate,

forming bores piercing through the resultant insulation layer or layers and exposing the land at their bottom, and

removing the filling material in the holes to allow each of them to communicate with each of the bores.

14. The method according to claim 13, wherein the formation of the bores and the removal of the filling

material in the holes is carried out using a laser beam.

15. The method according to claim 13, wherein the formation of the bores and the removal of the filling material in the holes is carried out by chemical etching.